

10/585337

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Yoshikazu YAMAKAWA et al.
Based on : PCT/JP 2004/000214
Docket No. : (06:82)
Customer No. : 02119

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Date: July 3, 2006

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97(b),
AND EXPLANATION OF THE RELEVANCE OF THE CITED PRIOR ART**

Sir:

The undersigned hereby requests that the prior art cited on the attached prior art statement be placed of record in the application file and be considered by the examiner.

This citation of prior art is made under 37 CFR 1.97(b), since it is being filed within three months of the filing date and before the mailing of a first Office Action.

The relevance of the prior art cited on the attached form PTO/SB/08a is as follows:

WO 96/04067

The present invention describes a device to process a fluid, the device having a membrane filter, wherein an agent able to detect or cause modification of at least one component of said fluid is localized in said device, preferably on the membrane. The device is arranged to filter the fluid by cross-flow filtration. A preferred form of membrane filter is hollow fibre membranes, especially a single hollow fibre membrane. Space between the exterior of the membrane and the inside surface of the outer casing of the device may be completely or partially filled with a solid material, which may contain the agent.

JP56147013

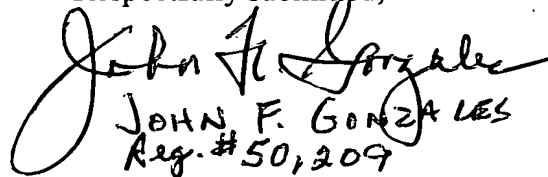
This invention shows how to detect the flow rate of liquid surely and periodically and obtain always a constant flow rate by measuring the time required for the intermittently fed bubbles to pass between two sets of photodetectors provided along the flow of liquid in a fluid flow passage having a transparent part. Photodetectors 2, 3 consisting of light emitting diodes 2a, 3a and light receivers 2b, 3b such as phototransistors are disposed by leaving fixed spacings in the transparent part of a fluid passage 1. At every prescribed time, bubbles are produced in a bubble supply pipe 6 by a bubble feeder 8, and bubbles 9 are set into the passage 1 through a check valve 7b. The time required for the bubble 9 to pass between the photodetectors 2 and 3 is detected and a liquid feed pump 4 is so controlled as to correct the rate of its fluctuations. Thereby, the constant flow rate is obtained at all times.

JP58100039U

No abstract available for this patent. It is cited to show state of the art.

Examination of this application is respectfully requested.

Respectfully submitted,


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Enclosures

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known	
			Application Number	
			Filing Date	
			First Named Inventor	
			Art Unit	
			Examiner Name	
Sheet 1 of 1			Attorney Docket Number (06:82)	

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		US-				
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FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind ⁵ (if known)				
		WO	96/04067	A1	02-15-1996	Robert Gordon Hood		✓
		JP	56-147013		11-14-1981	Hisataka Ukai et al.		
		JP	58-100039	U	07-07-1983	Masami Matsui		

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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